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LAKE ERIE LEVELS.

How to regulate or minimize the variation of levels on Lake Erie is the subject of a special and exhaustive report prepared by G. Y. Wisner, Esq., Detroit, a member of the United States Board of Engineers on Deep Waterways.

In conjunction with other work a channel and lock will be necessary on the Buffalo side of the river to a point below the gorge where it widens, and the current is slower, in order that vessels may pass around the works, and at the same time do away with the present dangers and difficulty in navigating the shoals and swift current in this part of the river. The estimated cost of the regulating work is about $800,000, while the cost of the 17-foot channel and lock, 600 feet by 60 feet by 21 feet, is estimated at about $1,600,000, or about $2,400,000 in all. The probable effect of the proposed works upon the lakes and waterways above and below is also one of great interest and importance. Perhaps the latter is more particularly so to Canada, for any further lowering of the waters of Lake Ontario and the St. Lawrence river would almost amount to a national calamity. While the report is not conclusive upon this particular point, the investigations in that respect not having been completed, it is claimed that regulation will not materially change the annual discharge through the Niagara river, and will only modify the distribution of flow about five per cent. of the average discharge, and therefore cannot materially affect the level of Lake Ontario and the St. Lawrence.

It seems that through the deepenings of the channels of the St. Clair and Detroit rivers in recent years, the low water levels of Lakes Huron and Michigan have been lowered one foot. It is estimated that the direct result of raising the level in Lake Erie three feet will be a corresponding rise of two feet in Lake St. Clair and one foot in Lakes Huron and Michigan, thus restoring to the latter their former natural low water level previous to the year 1886, and at the same time diminish the fluctuations of these lakes one foot. It is shown also in favor of this scheme that the aggregate cost of improving Lake Erie harbors alone has averaged $1,000,000 for every foot in depth of permanent improvement, and also that the enlargement of the navigable channels of the St. Clair and Detroit river to a width of 600 feet, is at present a matter of urgent necessity, and the favorable effect that the proposed work would have in this instance also is apparent. The report states that the stage at which the lake level would be regulated, that is with an elevation of 574.5 feet above mean tide water, would be six inches below high water mark, but the data upon which this height was reached does not appear to be given.

CUSTOMS REGULATIONS, RUSSIA.

The following notification on the above named subject has been published in the "Journal de St. Petersburg" for the 4th-17th ult. which contains an imperial decree applying increased tariff rates to such products of the United States as, on importation into Russia, are subject to duty under sec. 150, 151, 152, 153, 161 and 167, par. 2 of the Russian tariff for European trade. The decree also provides that, in the case of articles subject to duty under the above mentioned sections of the customs tariff, certificates of origin must be presented at the custom houses unless the said goods bear some trade mark or other indication proving their real origin. These measures are to come into force two weeks after the date of their publication. Appended to the decree are regulations concerning the certificates of origin required under its provisions. The following are the articles specified in the sections of the customs tariff referred to in the decree: Rough iron castings, vessels of cast iron enamelled, cast iron wares, worked, filed, polished, turned, painted, bronzed, varnished enamelled (except vessels), coated with zinc or other common metals, even in combination with wood, copper or its alloys; manufactures of iron and steel, forged, stamped, or cast, not filed or filed on sides and edges only, but not otherwise wrought, forged nails; boiler work of iron and steel, such as boilers, reservoirs, tanks, cases, bridges, pipes and all articles of sheet iron or steel not specially tariffed; manufactures of iron or steel not specially tariffed, shaped, turned, polished bronzed or otherwise worked, combined or not with wood or not with wood or with copper or its alloys, tools for arts, trades, factories and workshops, gas and water meters, motors worked by gas, hot air and petroleum, dynamos, sewing and knitting machines, portable engines, tenders, fire engines, machinery of all kinds not specially mentioned of cast or wrought iron or of steel, with or without parts made from other materials.

CANADIAN ASSOCIATION OF MASTERS AND MATES.

At the meeting of the National Masters' and Mates' Association held in Toronto last week, letters were read from the secretary of the Collingwood Council No. 2, and others, referring to the proposed change in the whistle signals used on lake vessels.

The present system of signals used by Canadian captains when in a fog is thought to be very misleading, and has led to a number of collisions during late years.

It was resolved to petition the Department of Marine and Fisheries to make the following changes:

"That the fog signal be changed from one long blast to three short ones, the starboard side to be indicated by one short blast and the port side by two short blasts. The ship signaled to reply in like manner."

This is the signal code used by American captains, and, whereas the number of American ships on the lakes greatly exceeds that of this country, the desirability of the proposed change is apparent.

Another matter brought before the meeting was our total lack of hospitals for Canadian sailors. In the United States every important lake city is provided with a sailors' hospital and good medical attendance. A sailor landing at one of these ports, if sick, shows his certificate, is admitted and given the best of care. To support this system each sailor of all grades was taxed 40 cents per month, and the plan worked so well, that, several years ago the levy was discontinued. The hospitals are now supported by the interest on the money which accumulated.

It is proposed that the Government ask the different hospitals to make tenders, contracting to give sick sailors medical attendance, etc., for so much per day; the fees to be collected from sailors, as in the United States, by customs officers or some other official.

WHO PERISHES FIRST?

Who perished first, U. S. Consul General Rounseville Wildman or his wife? This question is likely to cause some trouble in the settlement of the estates of the late Consul-General and his wife, who were drowned in the wreck of the City of Rio de Janeiro, at San Francisco. Mrs. Virginia Aldrich has obtained letters of administration on the estate of her daughter, Mrs. Wildman, and the public administrator has applied for letters on the estate of Wildman. As both husband and wife left seperate estates, and as each in the event of survivorshsp would be entitled to inherit from the other, the question of survivorship is important to the heirs of each. No one saw either of them come up after the ship sank. The supposition is they all went down together in which case the French law assumes that the man, who is the stronger, is the survivor. How many, if any, states does this law apply to?

PATENT METALLIC OARS.

A company has been formed in Detroit to manufacture patent metallic oars. We take the following from a description of one of the inventors:

"We will produce a steel oar which is one-third lighter than spruce or pine and one-half lighter than an ash oar, and at the same time so much stronger that a comparison cannot be made. I can only say for it that it will be indefinitely stronger than a wooden oar—that is, practically indestructible—if used with the same care that wooden oars are.

"To illustrate the strength, lightness and durability of the steel oar one of the oars we have made, a steel spoon oar, seven feet long, weighing two pounds and ten ounces, was tested with the lightest spruce spoon oar of the same length we could find. The spruce oar weighed three and one-half pounds. The two oars were tested by several expert boatmen, in a heavy, 16 foot flat bottom boat. It was determined that the spruce oar, which was of a very light build, could be brought to the breaking point with one hand while our steel oar withstood every effort which could be made with both hands in the water and by jerking it and digging it into the mud in shallow water. The same oar was thrown as high into the air as a man could throw and in falling to the ground was absolutely uninjured. It was also laid on a plank and jumped upon with both feet without a sign of a buckle, dent or other injury. Either of these tests would ruin a wooden spoon oar.

"The handle or loom and blade of our steel oar are hollow and air tight, joined rigidly. The oar floats upon the water like a cork. It can be made as stiff or as flexible as desired. The edge of the blade is less than one thirty-second of an inch thick, while the edge of a spruce or pine oar, is one quarter of an inch. This permits the metal oar to leave and enter the water without any perceptible splash, the difference between the metal and wooden oar in this respect being about the same as would be discovered by dipping a case knife and a lath in the water, the efficiency in dipping and leaving being found on the side of the thinner oar."

Articles of incorporation of the new company, which will operate under the title of the Detroit Metallic Oar Co., capital $10,000 fully paid in, have been filed with the Secretary of State, and it is organized with Wm. H. Maybury, of Detroit, as president; Peter J. Pool, of Toledo, vice president, and James A. Robison, of Detroit, secretary-treasurer. The company will operate under letters patent obtained by Messrs. Robison and Pool, covering the United States, Canada, Great Britain and France.

THE Secretary of the Navy has decided upon the names of the vessels authorized for construction under the acts of March 3, 1899 and June 7, 1900, and has directed the Judge Advocate General of the Navy to notify the builders accordingly. Battleship No. 13 will be called the Virginia, and will be built by the Newport News Ship Building Co.; battleship No. 14, the Nebraska, to be built by the Moran Bros., of Seattle; battleship No. 15, the Georgia, to be built by the Bath Iron Works, and battleships Nos. 16 and 17, the New Jersey and the Rhode Island respectively, by the Fore River Engine Co. Armored cruisers Nos. 4 and 7 are to be called the Pennsylvania and Colorado respectively, and will be built by Cramp & Sons; armored cruisers Nos. 5 and 8, named the West Virginia and the Maryland have been contracted for by the Newport News Ship Building Co., and armored cruisers Nos. 6 and 9, the California and the South Dakota, will be constructed by the Union Iron Works. The protected cruiser St. Louis will be built by Neafie & Levy, of Philadelphia, and the Charleston by the Newport News Co. The protected cruiser Milwaukee will be re-advertised for and bids will be opened at the Navy Department April 4, 1901.

AROUND THE LAKES

BUFFALO.

Special Correspondence to the Marine Record.

On Wednesday the steamer Chili, which was holding a cargo of grain, was discovered to be leaking, and the tug men moved all the vessels necessary to get the Chili to her elevator.

Many regrets are heard on the sudden death of Capt. McQueen, of the steamer Senator. The captain had many friends in Buffalo, yet no one seemed to think that he was so near taking his long departure.

Robert Hall McCormick has paid $20,000 for the steam yacht Catherine C., one of the finest yachts on the lakes. He will make necessary alterations in her to make her a salt water craft, and will then take her to Bar Harbor, Me. She is now in Oswego, N. Y., the residence of her former owner, Frederick Conde, who bought her last season from Michael Cudahy, of Chicago.

The New York Produce Exchange are solidly against the completion of the $9,000,000 improvement to the Erie canal as recommended by the Governor, the general opinion being that such a waterway, when completed, would be entirely inadequate and would in a few years become out of date. To spend the amount proposed on a waterway that would not give substantial and lasting results, such as a barge canal would insure, was considered a waste of money and an extremely short-sighted policy.

There has been a little friction this week between the tug captains and engineers and the lake engineers. The tugboatmen have their own organization and would like to resume harbor work as they are the only branch that is on a strike. President Uhler, leader of the lake engineers, seems to favor a close shut-down but the tugmen don't quite see it that way. In any case, if the lake engineers hold out until they disrupt the association of vessel owners, it is likely that but little work will fall to the share of tugs, scoopers, or any other class of harbor or longshore work until well along in the season. On the other hand, there is some talk of engineers modifying some of the hard bound demands that they first started out with, as it is not an easy matter to sail in and knock out an association of interests like the vessel-owners.

Mr. Connors is said to be compelled to forfeit the $50,000 he paid as a guarantee to build grain elevators at Montreal, first, because he could make no agreement with Capt. Wolvin by which the latter would take the contract off his hands, the terms of the grant not being satisfactory to the Duluth man, and second, because he could not rally to his support those upon he depended for his money supply. However, those who have been associated with Mr. Connors in the past believe that the Montreal harbor commission has not heard the last of him yet, it being their impression that he will put up a most vigorous fight to retain his money. On the other hand, the harbor commission, it is said, will not be sentimental about taking his guarantee, as they believe the harbor has been injured to that extent by the delay to which they were exposed.

The Northern Steamship Co., operating the North West and the North Land, has issued its card of rates for the ensuing year. Its tariffs are interesting in view of the fact that it has changed its course, taking in Chicago with the two boats mentioned, instead of Duluth, and caring for the latter trade by the addition of a steamer from the Atlantic coast. The new steamer is named the Miami. She is a twin-screw boat, 254 feet in length, and can be brought to the lakes through the St. Lawrence system and the Welland canal. The Miami is a speedy boat, fully twenty miles an hour, and her appointments are sumptuous. The boat has 150 staterooms, and it is expected that she will make two trips each week between Duluth and Mackinac Island, making close connections with the North Land and North West. The Miami will leave New York for the lakes about June 1. She has been chartered for one season only. She was built a couple of years ago under the special survey of the American Bureau of Shipping, New York, and carries the highest class and rating in the Record of American and Foreign Shipping, published by the foregoing named and universally known classification society. If J. J. Hill had given a contract for a new boat he would not have been better suited than he will be with the Miami.

CLEVELAND.

Special Correspondence to The Marine Record.

The bridge tenders are ordered back to their stations after a couple of months rest so that the river is again open for traffic.

The Bessemer Steamship Co. (Rockefeller) had, up to this week, kept out of the mammoth syndicate known as the United States Steel Corporation. The fleet of 55 vessels, including whalebacks, are now roped in.

The Fish and Game Commission wanted an appropriation of $12,000 for a patrol boat. Governor Nash thought the amount too large, and turned down the plans. It is thought all right to patrol Ohio waters but what about the other States bordering on Lake Erie?

There will be additional new tonnage to handle, about 3,000,000 tons this season and by the close there will be nearly as much more ready, however, if lake commerce doubles every six years, as it is said to do, there is room for a considerable amount of building right along.

When desiring any change made it is usually put in the form of a request, but I have noticed lately, said a vessel agent, that the working men, skilled or unskilled labor, come at you in a hold up sort of way with a demand. They can't even pass a resolution among themselves but the demand must be included.

The Hawgood-Avery Transit Co., of this port, filed a suit in admiralty, at Chicago, Tuesday, against the Sanitary District of Chicago and the Pennsylvania Steel Co. to recover $1,479.95. The company claims that its steamer S. S. Curry was damaged to that amount in September, 1899, when it was jammed in the south branch of Chicago river at Taylor street.

There is no talk of ore charter and that kill-joy of 50 cents from Lake Superior, all trimming and discharging charges paid, also perhaps, wages and insurance, can't be located, although, years ago, Capt. Alex. McDougall, of Duluth, said his whaleback models could tote ore and live at a clean 50 cent rate, but he is not carrying much if any of it himself these times.

A special from Ironwood, Mich., says the Odanah Mining Co., which owned the Carey and Superior mines west of Hurley, has announced the sale of its property to Pickands, Mather & Co. of Cleveland. The Carey and Superior mines produced almost 140,000 tons of ore last year. Two hundred and twenty-five men are now employed. It is said that between $300,000 and $500,000 was paid for the property.

Ore shovelers demanded 15½ cents per ton for unloading ore, 14 cents was paid last year and 12 cents was offered this season. A split is expected to compromise the figures to 13 cents but the shovelers still hold for at least last year's rate. Other demands such as for hoisters, and engineers and coal trimming have also been modified. The conference between dock managers and the longshoremen has now lasted nearly two weeks though all indications point to a settlement this week.

Another big side-wheel passenger steamer has been ordered, making three steamers of that class that will come out in 1902. They will all be built at the Detroit yards of the American Ship Building Co. The last contract was closed by B. W. Parker, of Detroit, general manager of the White Star Line of that city. The new boat will be a duplicate of the steamer Tashmoo, owned by the line, and which is one of the best excursion boats on the lakes. The machinery of the steamer Greyhound will be put in the new boat.

A meeting of the executive committee of the Great Lakes Towing Co. was held at the company's office in the Western Reserve building on Wednesday. President Newman said that no important business was transacted, but that another meeting would be held in a week or ten days when plans for the coming season would be decided on. Mr. L. M. Bowers, who is laid up at his home at Binghamton with a sprained ankle, will be able to attend the next meeting. Messrs. A. B. Wolvin, of Duluth; W. E. Fitzgerald, of Milwaukee; Edward Smith, of Buffalo, and Capt. James Davidson were present at the meeting.

The firm of Ewing Bros., Escanaba, having a line of steamers between Garden Bay and Escanaba, purchased this week from the Euclid Beach Park Co. the handy ferry steamer Duluth, and are now making such necessary alterations as will fit her for that trade. The Duluth and her sister boat the Superior were built and are well known at this port. They were also in service at the World's Fair, though built for traffic between the ports they are named after. The Duluth has good passenger accommodation and cargo space for a short route trade, and it is expected that the new owners will find her well paying property.

Among those of the pioneers in lake service passing away one by one, Cleveland has furnished her full quota this year. This week I have to record the death of Capt. William Wadsworth, aged 70 years. Capt. Wadsworth came of a long line of army and sea captains. He is a lineal descendent of Capt. Joseph Wadsworth of Charter Oak fame. At one time he was a vessel owner of prominence. Later in life he was a member of the lumber firm of Richardson & Wadsworth. He followed the calling of his forefathers up until ten years ago, when he was forced to retire by failing health. The funeral takes place to-day from his late residence, 462 Euclid Ave., under the auspices of the Masonic fraternity.

Some of the engineers were sent for this week by a manager of a large boat and asked when they would be ready to report for duty. The manager was told that the men would start to work as soon as they were wanted if he would give them letters agreeing to pay the engineers' schedule of wages and withdraw from the Lake Carriers. The owners of vessel property appear to be taking things easy and say that the engineers' strike is the least of their troubles. What they are going to get for carrying cargoes this season and how much to the good they will be at the end of the year is what is keeping them awake nights now, they say. Very little work is being done and the situation is the same at other ports.

All the interests of John D. Rockefeller in the iron business, including mines, railways and lake transportation lines, are to go into the United States Steel Corporation. These interests include the Lake Superior Consolidated Iron Mines, which concern has a capital stock of $50,000,000, of which $29,887,448.97 is outstanding. It was incorporated under the laws of New Jersey in 1893, to acquire and operate iron mines in the Mesaba range, Minn. The company owns extensive properties in this region and leases some of its mines to the Carnegie Steel Co. and other large steel manufacturers. It owns the Duluth, Mesaba & Northern Railway, extending from Duluth to Iron Mountain, Minn., and embracing about 130 miles of road.

Capt. Charles Roach, a Chicago steamboatman, was here this week and showed to some of his friends, including vessel owners, a model for what is almost an extra rudder to be used in the rivers or in any narrow waters where tail twisting is required. The patent consists of a flanged afterpiece to be fitted on the rudder and is easily fixed from the deck on a modified pintle and gudgeon style with a woodlock to keep it in place. To unship the assistant, it is only necessary to withdraw the woodlock, clap on to a taffrail davit tackle and land the semi-balanced rudder on deck. The invention is a capital one and would certainly do all that is claimed for it. The only point in question is, how many vessels would carry it around solely for river and harbor purposes.

THE LARGEST STEAMER EVER BUILT IN THE UNITED STATES.

The steamer Korea, sister ship to the Siberia, now building, will be launched from the yards of the Newport News Shipbuilding & Drydock Co. on Saturday next.

The Korea has been built to the order of the Pacific Mail Steamship Co. for the N. Pacific trade between San Francisco and Hong Kong, including several ports of call. Her hull dimensions are 572⅓ feet over all, 550 keel, 63 beam, 40 in depth and a displacement of 18,600 tons on a draft of 27 feet.

The Korea is the largest vessel ever built in the United States; the Saints, Louis and Paul coming next, but about 40 feet shorter in length, their dimensions are 535.5, 63, 26.8.

The estimated cost of the new steamer is $2,000,000, and Miss Katherine Winthrop Tweed of New York, daughter of one of the owners, will stand sponsor at the christening ceremony. Thus does Virginia carry the palm as a distinction for building the largest vessel ever constructed on this hemisphere.

NOTICE TO MARINERS.

UNITED STATES ENGINEER OFFICE, JONES BUILDING,
DETROIT, MICH., March 14, 1901.

A new chart in colors of Agate and Burlington Bays, Minn. (Two Harbors), has just been issued and is now on sale by the U. S. Lake Survey, Detroit, Mich., at five cents per copy.

W. L. FISK, Major, Corps of Engrs.

CHICAGO.

Special Correspondence to The Marine Record.

Work on the big steel steamer Henry W. Oliver, which occupies the stationary dry-dock at Milwaukee, is nearly completed. The Oliver is under charter to load grain at South Chicago.

The steamer George F. Williams is under charter for 100,000 bushels of corn from Milwaukee to Buffalo at 2¼ cents. She will load at the Nye-Jenks elevators. The all-rail movement of oats to the seaboard continues heavy.

Capt. John Coffey, who is fishing out of Manistique with his tug, reports heavy ice around the south end of the Beaver and Fox Islands, and solid ice also from Seul Choix light to Squaw Island, and north and east of the Straits of Mackinac.

Capt. Miles Barry has placed the steamer Gordon Campbell under charter to the C. Reiss Coal Co., of Sheboygan, to carry salt from Port Huron to Manitowoc, Sheboygan and Milwaukee. The coal company expects to place two vessels in this trade, and it is therefore likely that Capt. Barry's barge Sophia Minch may be included in the charter. The Gordon Campbell will again be commanded by Capt. Louis Larson, of Muskegon.

Capt. Charles Roach, one of our best known tugboat men has patented a rudder piece to ship over the after part of a rudder when extra use is required out of that important portion of a hull. No doubt the idea was brought out through seeing some pretty wild sheering in the current here on account of the canal opening, but of this the captain says nothing. The sort of shoe piece fits on the after part of the rudder rigidly and is held snug in place. It is only meant for temporary use and is carried by the vessels just for making good steering in narrow waters.

The Graham & Morton Transportion Co., of St. Joseph, operating a line of steamers between St. Joseph and Chicago, has absorbed the line of vessels belonging to the Holland-Chicago route. The transaction includes the Ottawa, the new propeller now in course of construction at the yards of the Craig Ship Building Co., Toledo. It is reported that the bar at Holland has silted up as usual, and as there was no funds for dredging, on account of the failure of the river and harbor bill in the Senate, it was no longer safe to run valuable steamers into Holland. If this was the actual reason for the transfer of the property, it will nearly ruin Holland and hurt Chicago to a certain extent also.

James H. Cameron, the oldest man of Kenosha county and one of the pioneer shipbuilders of the Great Lakes, died very suddenly at the home of his son, Capt. B. G. Cameron, in Kenosha last week. He formerly resided in Milwaukee. He was well known to nearly every vessel owner on Lake Michigan. A Scotch-Canadian by birth he was raised on the banks of the St. John's river, near the village of Holton, New Brunswick. From his earliest manhood he engaged in the business of shipbuilding and when Chicago began to develop into a shipping center he came West and opened a small shipyard near the site of the old Rush street ferry station. In this little yard he built many of the early vessels which were used for the lake traffic. The schooner America which recently went down on Lake Michigan, was one of the first boats turned out at the Cameron shipyards. After Mr. Cameron had been in business in Chicago for some ten years he went to Milwaukee in 1848, and for a while he was engaged in shipbuilding there. In 1850 he went to Kenosha and since that time he has resided there. At the time of his death he was in his ninety-second year. His son, Capt. B. G. Cameron, who is in charge of the life-saving station, is now the sole survivor of the Cameron family.

EAST TAWAS, MICH.

Special Correspondence to The Marine Record.

The tug Genewuch will be stationed here for harbor towing.

Mr. Bristol will present each city on the lakes with a large life buoy for use of harbor master.

Wm. Nesbit, for many years a prominent lumberman at Tawas City, died in Bay City, Friday.

The fine run of sleighing all winter resulted in giving a full season run of stock to the Ottawa hardwood mill and Fox's stave mill.

Capt. Small, of the life-saving station, has finished the erection of telephone poles, and wire will soon be stretched from here to the station.

Howard C. Bristol, marine reporter here, has notice of patent allowed him for life preserver. This preserver was thoroughly tested last summer and gave great satisfaction. They will be on exhibition at the Pan American. The place of manufacturing has not yet been selected.

A description of Howard C. Bristol's patent life preserver is as follows: The device consists of a series of buoyant blocks of wood, composition or other suitable material, strung together transversely by upper and lower cords that pass through holes in the blocks. A series of holes are bored in each block; these holes extend from the top of the block nearly to the lower cord, and are rendered air tight by either coating them inside with waterproof paint, shellac or other mixture, or else inserting closed air-tight tubes of metal or other suitable material. The holes are closed with plugs, preferably of wood or other material from which the blocks are made. This invention relates to life preservers, life rafts and similar apparatus, and these improvements consist in certain means and devices whereby one is enabled to produce a life preserver that is simple in construction, inexpensive to manufacture, strong, yet lighter and of far greater buoyancy than the life preservers now in use. Such is the claim. The government requires a buoyancy of 24 pounds and these life preservers of the same size as those now in use give a buoyancy of 36 pounds. Most of the life preservers now used can be provided with these air chambers at little expense thus making them lighter and more buoyant. In case of wreckage these are not breakable and have no ground cork to wash out when the covering becomes torn. They protect the body from injury in wreckage and will float a body for months.

DETROIT.

Special Correspondence to the Marine Record.

The Detroit Metallic Oar Co. will manufacture hollow steel oars of every description, they are lighter than wood and can be plated any color.

The C. & D. is all right, the C. & B. came a little nearer, but when they talk D— & B— to the lake matelot, they just strike his positive, flat-footed phraseology. Homely like, isn't it?

Many regrets are heard at the causalty through the burning of the Jenks shipyard, at Port Huron, with an estimated loss of $150,000 to $175,000, only partially covered by insurance. The two vessels in course of construction were not damaged. The cause of the fire has not been ascertained.

It is denied that the boats of the Detroit & Cleveland Navigation Co. have been withdrawn from the Lake Carriers' Association. General Manager Carter has not made an agreement with President Uhler of the Engineers' Association. Messrs. Carter and Uhler had a conference, but no action was taken and Mr. Carter was given two weeks to decide.

All hands are pleased to see Mr. David Carter general manager of the D. & C. Line, around again after his long siege of the grip. When that obstinate Frenchified la grippe takes a hold, it is best to lay up or lay down to it and be sick like a man, otherwise it hangs on like grim death to a dying Hercules. I would have said colored vagabond, or collapsed nigger, but myself as well as some of the other fellows had to cave in, or trail around with snotty noses.

That was a cute enuf deal and worthy of a Yankee. I refer to the perpetual franchise of the Windsor Ferry Co., whereby they exempted or pre-empted a mile each side of their landing. Now, I wonder if the act of parliament sort of a monopoly would hold water any deeper than Detroit river. Here is a competing ferry wants to ply across the river, but finds that it can't land within a mile east or west of the present central ferry landing at Windsor. The only way to circumvent that Canuck law is to swing around the axis of the city, some of Carrie Nation's might do!

The Detroit Free Press Wednesday said: The striking engineers need all their stamina these days to withstand the temptation which is being thrown at them from every point. Nearly every Detroit striker who had employment with a big line last year has received letters and telegrams requesting him to confer with their fellow engineers in the line and with the manager of the line, with a view to going back to work regardless of the Engineers' Association. Yesterday morning the Detroit engineers employed last season in the Carnegie fleet received telegrams asking them to report in Cleveland for mutual conference ostensibly, but probably for conference with the manager. Question: Will the prospect of a good season's job at good wages tempt the engineer from the course which may mean an empty berth for the season, and the accompaniment of the meager income to be derived from the strike fund? Time, and a not long one, will tell the story.

DULUTH—SUPERIOR.

Special Correspondence to The Marine Record.

There is but little talk of grain chartering here this week, the opening rate is quoted at 2 cents on wheat, a few cargoes being reported as placed at that figure but the names of the vessels are not given. There is a total of about the same as the opening last year or say 17,000,000 bu. and of this there is half more wheat than corn. However, as nothing will likely start out before early in May, there is ample time for a dozen phases of the freight market to take place in the interval.

Several lumber cargoes for Lake Erie ports have been placed at $2 by the Edward Hines Lumber Co., Chicago, though agents still hold out for 25 cents to 50 cents better as the opening rate. The above shippers are an extensive firm and handle a fleet of their own, so that the $2 may not be exactly a flat rate in this instance. There is a lot of seasoned lumber to go forward this spring, it being placed at three or four times the quantity that was here on the opening of navigation last season, and as other prospects look fair the vessel agents are holding firmly for the 25 cents to 50 cents better rate.

Now that the Conners syndicate has let go of the Montreal project, Capt. Wolvin, of Duluth, has taken it up and offers to put $2,000,000 into the construction of grain elevators and about the same sum into a canal fleet. Speaking of the report here this week to an ex-Canadian he said: "The government of Canada has now the greatest chance ever offered or available to make a great terminal port of Montreal and utilize the St. Lawrence route. The trouble with the people over there is that they get the best advice, talk matters over to a standstill, and then let the projects drop. They now ought to give us a good clear channel of 14 feet to Montreal and let the line boats as well as the Atlantic tramps do the rest."

The United States court of appeals at St. Louis has cut down Judge Lochren's award of $10,500 for salvage in favor of the White Line Towing Co., of Duluth, for services in rescuing the Arthur Orr and cargo, to $5,200. The case was entitled C. W. Elphicke et al. vs. White Line Towing Co. The question in the case is whether Capt. Singer of the towing company, agreed to assist for the same compensation as Capt. Inman, both being at the wreck with outfits and the latter working by the day. The underwriters claim Singer agreed to work as cheaply as Inman, while Singer claims he said he would accept going rates for such work. Both the towing company and underwriters appealed from the decree of the United States court for $10,500 salvage. The Arthur Orr was wrecked Nov. 21, 1898, at Baptism river, north shore Lake Superior.

PORT HURON.

Special Correspondence to The Marine Record.

The ice in the lower end of Lake Huron is fast breaking up.

There is some talk of using the steamer Mary as a ferry across the St. Clair river until the Conger is repaired.

In the rooms of the Masters and Pilots are large pictures of Past Captains Reynolds, Montgomery and Henderson.

Amended articles of association of the Pawnee Boat Co. and the Mills Transportation Co., have been filed with the county clerk.

The steamer Conger will go into dry dock to receive repairs. The damage the boat received in the ice in St. Clair river this week was said to be quite serious.

It is thought that the burning of the steamer White Star last week, was the work of tramps, as the place where she was tied up was infested by them. The boat is burned to the water's edge.

The Masters and Pilots want it understood that they do not attempt to dictate terms to vessel owners. They have never experienced any difficulty in receiving proper consideration from owners.

Capt. Ed. Henry entered into a contract this week for a life charter with Miss Bertha Schlicht. The happy couple left for a short eastern trip to York State, on their return they willl take up their residence at the New Pacific hotel.

On Monday night fire destroyed the pattern shop, drafting loft, drill and punch building, offices, and in fact all the buildings of the Jenks' Ship Building Co., all the patterns of the former boats built by them; it will sustain a loss of about $15,000, partly covered with insurance, it will throw about 200 men out of employment for a few days. They have a big gang of men at work clearing away to get ready to rebuild at once.

THE FIRST ICE CRUSHER.

(JOHN W. FITZMAURICE IN THE DETROIT JOURNAL.)

Among the remarkable instahces of progress punctuating the last quarter of the nineteenth century, none are more deserving of attention than the advance made in successfully combating the obstacles to winter navigation on the great American inland seas. The success attendant upon the exploits of the huge ice crushers, Algoma and St. Marie, in the Straits of Mackinaw; the steam ferries across Lake Michigan, and the wonderful achievements of the Russian ship Ermack last winter in the Baltic Sea and Gulf of Finland, all lead to the conclusion that commerce will yet find no insuperable hindrance from the ice-blocked channels of trade.

The progress made in the last half of the nineteenth century would seem to give assurance for the final evolution of a successful ice-fighting ship that would pierce the icy battlements of King Frost, not only on these inland seas, but even to plow its way to the north and south poles.

But few are today living who were contemporary with the initial experiment in this direction or witnessed the first successful ice crushing ship ever built in America. The present writer is one of those few remaining who witnessed this episode and would seek for the benefit of the interested reader of today, to here tell the story of the fisrt steamship built expressly to fight the ice blockade on Lake Ontario.

In passing, it may be noted, that to Sir John Franklin can be justly attributed the initial effort to construct an ice crusher. His ships, the Erebus and Terror, were both constructed with a view to pounding a way through heavy ice floes. This was in 1845, and while the result was disastrous, it furnished the hint to one Capt. Hugh Richardson of Toronto, Ont., who had for years served as master of some of the earliest steamboats that had navigated the waters of Ontario or the St. Lawrence river.

Taking his initiative from Franklin, Capt. Richardson determined to build a boat that would make winter trips be tween Toronto and Niagara. This was in the days when railroads were still in embryo, and stages around the head of the lake and down the north and south shores were the only method of travel during the winter months.

The Niagara river is always the last of the lake outlets to yield its icy fetters to the wooings of spring. For seven miles, from its mouth to Lewiston N. Y., the ice gorge would fill the river, rising to a height of twenty to thirty feet above the level and extending out into Ontario four or five miles. Toronto bay, on the north, would be also ice-blocked, and the thirty-six miles of width of Ontario this much curtailed. These ice jams were the last to give way, long after Lakes Michigan, Huron and Erie were free to spring traffic. To shorten this imprisonment of the Niagara peninsula had for many countless winters been the yearly recurring problem, and tons of powder and hetecombs of forest trees had gone up in smoke to break the jam and start the ice floating. So, necessity being the maternal progenitor of invention, Capt. Richardson designed his boat, which for ten years successfully opened navigation fully a month earlier on Ontario, and to him let all due credit be given as being the pioneer projector of the first battleship to whip King Frost into sulky submission to the inevitable.

Both Capt. Richardson and his boat were erratic in ideas. He was noted as a very able captain and when he propounded his design of the ship to the Canadian capitalists they at once recognized its feasibility, and funds for its construction were quickly advanced. At the head of this project was a very able man in the person of John Beverly Robinson, at that time chief justice of upper Canada, who, with far-seeing perspicuity, furnished both money and advice, backed Capt. Richardson, giving him carte blanche in the construction of the boat. She was built at the shipyard of the Niagara Dock Company and her keel was laid in the winter of 1845. Her length was 285 feet, and her single engine, low pressure, was rated at 300 horse-power. But her form was different from all other boats which had preceded her, and in that Capt. Richardson showed his originality. She might have been termed composite in construction and figure, being actually the evolution incident between the wooden and iron ship. She was built of extra thick oak timbers and planking over the latter being a sheathing of ⅜-inch thick boiler plating. Her bow was shaped like that of the ancient Roman galley, finishing with a figure-head of a monstrous serpent, after the style of the dragon ships of the old Norse Vikings. The whole of the bow was reinforced with heavy square oak timber, while the forward deck was occupied by a large number of casks, filled with scrap iron, so that when she was driven up against an ice floe this weight would be rolled to the bow and add to her crushing power. The stem was bound with iron, having a cutting edge—another embryonic naval ram—and would sheer through twenty-five feet of ice with perfect ease. Her propulsion was side paddle wheels, each bucket of which was heavily sheathed in iron, and thus clad in mail of proof she went forth against the grim monarch of the north wind and fought him to a conquering close.

Capt. Richardson had one whim in regard to the build of his boat upon which he strenuously insisted. He would have the double bend of the bow timbers, or stem, exactly in the form of a swan's neck and of a natural growth of white oak. To find such a crooked stick, all the hard timber forests of Canada, New York and Michigan were sought for by an army of timber experts, but without success, and the prospects were good for the ship remaining upon the stocks indefinitely, for the want of a nose piece. Large rewards were offered for this white oak tree, and at last when all further search was about to be abandoned the captain had his whim gratified in the very shaped tree required being found within four miles of where the boat was being built. She was launched in the May of 1845, just about the time Franklin left Portsmouth with the Erebus and Terror. No pains or expense were economized in the internal fittings of this strange craft—named after her chief sponsor, "Chief Justice Robinson." Her cabins were gorgeous in finish. Mahogany and satin wood abounded. Gilding, plate mirrors, crystal chandeliers and velvet upholstering was largely in evidence. Capt. Richardson and his two stalwart sons, Hugh and James, simulated the British navy style in uniform, while the appointments and discipline of the boat and crew was "man-of-war" throughout.

The summer of 1845 the Chief Justice Robinson plied as a passenger boat between Toronto and Niagara. She was crowded with passengers every trip and certainly marked a new epoch in lake navigation, although her best speed was about 10 knots per hour. She made the round trip across the lake each day, and through that season was the wonder and admiration of all.

But when other boats began to lay up at the close of navigation, the winter work of the Chief Justice was fairly begun. To keep a clear channel through the three miles of Toronto bay, from Queen's wharf to the outlet, was a comparatively easy task, but when old sailors thought of the ice gorge in Niagara river they savagely shook their heads and opined that to break such a jam would prove a flat failure. To more fully understand this condition during four months of winter, it need but to be said that from the foot of the falls to the mouth of the river, 14 miles, the river was the discharge sewer for all the ice of the upper lakes. The jam would usually terminate in the formation of the ice bridge at the falls and continue until thawed out by the spring rains and sunshine. This vast glacier extended its couch-like edges along either shore and, octopus like, laid its icy tentacles upon wharf, dock, storehouse, lumber and all else on the shores. The yearly destruction when the ice began to move, tearing with it all within its grasp, was simply incalculable. Could a channel be kept open through the winter this destruction and additional inconvenience of frozen exclusion from the rest of the world would be obviated. This was the task undertaken by Capt. Richardson's boat, nor did she fail in meeting the most sanguine expectations of her builders. Niagara on the lake has been a place of much importance, from the earliest history of Canada. It was always a garrison town from the time Sir William Johnston made his treaty with the Six Nations, in 1858, when the last British soldiers were removed. Hence, large supplies were constantly required, which could not be obtained in winter. Fort Missaugua occupied the Canadian mouth of the river and Fort Niagara the American side. A shoal extended out into the lake for two miles on either side, marked by many a dire shipwreck and loss of life. On these two shoals the ice would pile to a height of 30 feet, thus completely locking up the ancient burg for the winter months.

This ice gorge somtimes formed above the falls, and then the waters of Erie would back up upon the New York and Canadian towns along the coast. In 1844 Buffalo was inundated in this manner and the result was terrible in the destruction to life and property. The winter of 1845-6 was of more than ordinary severity. The ice jam in the Niagara river threatened to be of unusual size, and people calculated accordingly. But little confidence was placed in Capt. Richardson's experimental ice crusher to successfully combat the old-time authority of King Frost. But the jam had no sooner formed than the fight began. Dressed in all her bunting and with the old sea-dog on the bridge, the Chief Justice made her first assault.

The day was bitterly cold, but thousands lined the river bank to witness the battle. It certainly was a grand one! The boat, dressed in evergreens and under all the force of her engine, would rush upon the breastworks of ice and glide half her length above the water with her stem high in the air. Remaining stationary for a few moments, the galley prow—iron shod—would gradually be seen to sink to the level, leaving high walls of ice on either side. Backing up, she would again be hurled against the frozen barrier, and thus through the whole of that first day, from 10 o'clock till dark, the fight continued, till at last, amid the cheers of the enthusiastic multitude, she reached her dock, leaving behind her a channel some wider than herself, and clad in icy garb as trophies of the battle fought and triumphantly won.

There was no ice gorge in the Niagara river that winter, nor for many succeeding winters, until the Great Western and Grand Trunk railroads diverted traffic from the lower lake and made navigation thereon a thing of the past. But from this initial experiment have developed the mighty engines that to-day bid defiance to boreal fetters. From this evolution and present development of the ice crusher, what future possibilities may not be anticipated? The picture of a massive ice crusher cleaving its way from Chicago to Buffalo, followed by a string of grain laden steam barges, to finally pass, by a grand ship canal, to tide water, is no wild figment of the mind. That these inland seas will yet be united with the Atlantic is fully within the bounds of a sure possibility, and the ice crusher of a coming future will make winter navigation practical in wedding these great unsalted seas to the world of waters beyond.

EASTERN FREIGHT REPORT.

Messrs. Funch, Edye & Co. New York, report the condition of the eastern freight market as follows:

The freight market, as far as grain charters are concerned, is practically at a stand-still, shippers having no enquiry for full cargo steamers. The fixture reported at 2s 6d Cork f o. is the lowest figure touched for some time past but in the absence of any further demand there is no indication of any better rate being obtainable for the time being. There has been a fairly good chartering business accomplished from the Gulf, both for general cargo and for timber, but the rates accepted in most cases have been on a slightly reduced scale. This is the only direction in which any activity has been manifested. A few fixtures have been transacted on the time charter basis, but in this case also, rates show a decided slump. For long voyage trades there is some little enquiry for tonnage for case oil, two steamers have been taken and which possibly could be repeated. The general condition of the freight market is anything but satisfactory from an owner's point of view.

Business in sail tonnage continues slow, notwithstanding the limited offerings of deep water vessels. Rates for case oil to the far East, however, are rather weaker than of late, in consequence of the number of steamers taken for this trade; otherwise we have nothing of importance to note.

AN ECHO FROM THE SPANISH WAR.

In the Court of Sessions, Edinburgh, Lord Low closed the record in an action brought by the Spanish Minister of Marine, in Madrid, against the Clydebank Engineering & Shipbuilding Co., Clydebank, and the liquidators thereof, for £75,500 ($377,000). In 1896, contracts were arranged by the Spanish government with the defendants for four torpedo-boat destroyers, which, it was alleged, were not delivered within contract time. They were required for the Spanish-American war. Defendants pleaded that the engineers strike on the Clyde was responsible for the delay, and that delivery of the vessels was accepted, without reservation, whilst it was provided in the contract that should the vessels be delayed by force majeure no penalty should be exacted.

A STATISTICAL writer claims that the present generation need have no fear that the United States will run short of timber during its lifetime. Well informed lumber experts claim that the forests of California, Oregon and Washington contain at least 75,000,000,000 feet of uncut timber. These magnificent forests contain at least 75,000,000,000 feet of uncut yellow and red fir. Oregon alone can boast of 25,000 square miles of valuable timber. The forests of Washington contain more timber than all the pine forests of Michigan and Wisconsin combined before the ax of the woodman had cut a single tree, and they stand today an ever green monument to the necessity of advanced and improved commercial intercourse.—Lumber Journal.

THE MANAGEMENT OF OPEN ROWBOATS IN A SURF; BEACHING THEM, ETC.*

CHAPTER I.

RULES OF MANAGEMENT—ROWING TO SEAWARD.

As a general rule, speed must be given to a boat rowing against a heavy surf. Indeed, under some circumstances, her safety will depend on the utmost possible speed being attained on meeting a sea. For if the sea be really heavy, and the wind blowing a hard, on-shore gale, it can only be by the utmost exertions of the crew that any headway can be made. The great danger then is that an approaching heavy sea may carry the boat away on its front, and turn it broadside on, or up-end it, either effect being immediately fatal. A boat's only chance in such a case is to obtain such way as shall enable her to pass, end on, through the crest of the sea, and leave it as soon as possible behind her. Of course, if there be a rather heavy surf, but no wind, or the wind off-shore, and opposed to the surf, as is often the case, a boat might be propelled so rapidly through it that her bow would fall more suddenly and heavily after topping the sea than if her way had been checked; and it may, therefore, only be when the sea is of such magnitude and the boat of such a character that there may be chance of the former carrying her back before it that full speed should be given to her.

It may also happen that, by careful management under such circumstances, a boat may be made to avoid the sea, so that each wave may break ahead of her, which may be the only chance of safety in a small boat; but if the shore be flat, and the broken water extends to a great distance from it, this will often be impossible.

The following general rules for rowing to seaward may, therefore, be relied on:

1. If sufficient command can be kept over a boat by the skill of those on board her, avoid or "dodge" the sea, if possible, so as not to meet it at the moment of its breaking or curling over.

2. Against a head gale and heavy surf, get all possible speed on a boat on the approach of every sea which cannot be avoided.

3. If more speed can be given to a boat than is sufficient to prevent her being carried back by a surf, her way may be checked on its approach, which will give her an easier passage over it.

ON RUNNING BEFORE A BROKEN SEA OR SURF TO THE SHORE.

The one great danger, when running before a broken sea, is that of broaching-to. To that peculiar effect of the sea, so frequently destructive of human life, the utmost attention must be directed.

The cause of a boat's broaching-to when running before a broken sea or surf is that, her own motion being in the same direction as that of the sea, whether it be given by the force of oars or sails or by the sea itself, she opposes no resistance to it, but is carried before it. Thus, if a boat be running with her bow to the shore and her stern to the sea, the first effect of the surf or roller, on its overtaking her, is to throw up the stern, and as a consequence to depress the bow; if she then has sufficient inertia (which will be proportional to weight) to allow the sea to pass her, she will in succession pass through the descending, the horizontal, and the ascending positions as the crest of the wave passes successively her stern, her midships, and her bow, in the reverse order in which the same positions occur to a boat propelled to seaward against a surf. This may be defined as the safe mode of running before a broken sea.

But if a boat, on being overtaken by a heavy surf, has not sufficient inertia to allow it to pass her, the first of the three positions above enumerated alone occurs—her stern is raised high in the air, and the wave carries the boat before it on its front or unsafe side, sometimes with frightful velocity, the bow all the time deeply immersed in the hollow of the sea, where the water, stationary or comparatively so, offers a resistance, while the crest of the sea, having the actual motion which causes it to break, forces onward the stern or rear end of the boat. A boat will in this position sometimes, aided by careful oar steerage, run a considerable distance until the wave has broken and expended itself. But it will often happen that if the bow be low it will be driven under water, when, the buoyancy being lost forward, while the sea presses on the stern, the boat will be thrown (as it is termed) end over end; or if the bow be high, or it be protected, as in most lifeboats, by a bow air chamber, so that it does not become submerged, that the resistance forward, acting on one bow, will slightly turn the boat's head, and the force of the surf being transferred to the opposite quarter, she will in a moment be turned round broadside by the sea, and be thrown by it on her beam ends or altogether capsized. It is in this manner that most boats are upset in a surf, especially on flat coasts, and in this way many lives are annually lost among merchant seamen when attempting to land after being compelled to desert their vessels.

(Continued in next issue.)

* Reproduced from instructions published by the Royal National Life-Boat Institution of Great Britain.

COMMERCE OF THE WORLD IN 1900.

The following table shows the imports and exports of all countries for which statistics have been received by the Bureau of Foreign Commerce:

	Imports.	Exports.
United States	$ 829,052,000	$1,478,050,000
United Kingdom	2,548,260,000	1,725,422,000
France (11 months	773,058,600	719,686,600
Germany	1,388,328,200	1,084,159,200
Belgium	409,139,500	346,808,100
Austria-Hungary (9 months)	280,887,200	317,954,200
Spain (11 months)	123,181,100	101,868,500
Servia (9 months)	7,687,000	8,778,900
Russia (8 months)	119,110,200	210,807,000
Switzerland	214,800,000	164,000,000
Italy (11 months)	275,792,300	237,367,100
Greece (3 months)	5,690,700	3,894,600
Mexico (1899–1900)	61,304,900	71,396,600
Canada (1899–1900)	182,951,400	175,656,900
British India (1899–1900)	293 345,200	374,163 900
British Guiana (1899 1900)	6,329,800	9,254,200
Cuba (1899–1900)	71,681,200	45,228,300
Philippines (1899–1900)	20,597,200	19,751,100
Porto Rico (10 months ended April, 1900.)	8,730,600	4,594,400
Japan (10 months)	124,261,200	81,146,800
Egypt (10 months)	54,029,100	60,350,900
French Guiana (6 months)	1,648,800	1,388,300

The progress noted last year in the work of our consular service in promoting American industries and trade is emphasized by the increased number of letters from leading business firms and trade bodies during 1900, commending the zeal of consular officers and testifying to the practical utility of their efforts, as well as by the continued assertion by expert opinion abroad of the superiority, both in character and promptitude of publication, of the United States Consular Reports. Thanks to the general improvement and quickened zeal among consular officers in preparing their annual reports, the Bureau of Foreign Commerce is enabled this year to publish Commercial Relations about a month in advance of the usual time, and thus to practically reach the goal contemplated in the instructions of the department—the transmission to Congress on or about the first of January of "a comprehensive statement of the trade not only of the United States with the rest of the world, but of the various countries with each other."

FREDERIC EMORY,
Chief, Bureau of Foreign Commerce.

DEPARTMENT OF STATE, January 23, 1901.

VISIBLE SUPPLY OF GRAIN.

As compiled for THE MARINE RECORD, by George F. Stone, Secretary Chicago Board of Trade.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY Bushels.
Buffalo	2,346,000	.....	.....	39,000	521,000
" afloat	1,014,000	.....	.....	.....	.....
Chicago	11,285.000	4.753,000	3,230,000	501,000	251,000
" afloat	98,000	2,7 2,000	1,344,000	1,000	.....
Detroit	434.000	503,000	1,000	39,000	23,000
Duluth	8,243.000	4.908,000	1,088,000	399.000	74,000
Fort William, Ont.	1,571,000	.....	.....	.....	.....
Milwaukee	1,043.000	663,000	774,000	1,000	26,000
" afloat	.....	128,000	322,000	.....	72.000
Montreal	133.000	12,000	222,000	9,000	38,000
Port Arthur, Ont.	245.000	....	.....	.....	.....
Toledo	584,000	1,974,000	351,000	7,000	1,000
Toronto	75,000	.....	3,000	.....	15,000
Grand Total	55.123,000	22,348,000	10,8 1,000	1,198,000	1,337.000
Corresponding Date, 1899	53,911,000	20,542,000	6,728,000	1,167,000	961,000
Increase	.....	1,334,000	33,000	83,000	.....
Decrease	769,000	.....	.....	.....	18,000

While the stock of grain at lake ports only is here given the total shows the figures for the entire country except the Pacific Slope.

A MONUMENTAL engineering work is in the course of completion in Egypt. When finished it will control the waters of the Nile for irrigation purposes. The dam, with 180 openings, 23 feet high and 7 feet wide, controlled by steel sluices will discharge 15,000 tons of water a second, when the Nile reaches its maximum height. It will be in operation for the Nile flood in 1903. About 5,000 men are employed in the cutting of a diversion channel. The Nile valley will once again regain its prestige for fertility, and the agricultural and other interests of Egypt will prosper accordingly.

SHIPPING AND MARINE JUDICIAL DECISIONS.

(COLLABORATED SPECIALLY FOR THE MARINE RECORD.)

Designation of Berth.—A designation by a charterer of a berth for a vessel, on notice of its arrival in port, was given within a reasonable time when delivered within two or three hours from such notice of arrival. The St. Bernard, 105 Fed. Rep. (U. S.) 994.

Duty of Charterer.—Where a charter provided that a vessel should proceed to Pensacola and there load, the cargo to be delivered alongside, and that fourteen working days should be allowed the charterers for loading the vessel, a contention that under the terms of the charter party the duty of the charterer was ended when the cargo was delivered alongside, and that all delays in loading and stowing the cargo were at the risk of the ship owner, was without merit. Hagerman vs. Norton, 105 Fed. Rep. (U. S.) 996.

Shipping—Demurrage—Loading Cargo—Stoppage of Labor.—Where a charter provided that a certain number of working days should be allowed for loading the vessel, detention caused by strikes or "estoppage of labor" not included, days on which those loading the vessel refused to work owing to storms, and days when the labor organizations withdrew their members to attend a funeral, and for the celebration of Labor Day, should not be excepted from the days allowed for loading; all days save Sundays and legal holidays being working days, and there having been no forced stoppage, within the meaning of the charter party. Hagerman vs. Norton, 105 Fed. Rep. (U. S.) 996.

Collision—Meeting Steamer and Tow—Crowding by Overtaking Steamer.—Evidence considered in a suit for collision between an ore-laden barge in tow passing down through the dredged channel in Lake St. Clair, and the meeting steamer, Edward Smith No. 2, and held to establish that the collision was due to fault in the officers and crew of the Smith, in failing to properly navigate their vessel, which was permitted to sheer after passing the tug, and swing across the course of the tow, breaking her cable, and also to the fault of the Masaba, an overtaking steamer, which was attempting to pass the Smith without having signaled her intention, and in violation of the rules governing navigation in the channel. The Edward Smith No. 2, 105 Fed. Rep. (U. S.) 987.

Custom of Port.—Where a charter party provided that fourteen working days should be allowed for loading the vessel in the port of Pensacola, and that the custom of each port was to be observed in all cases, and the vessel was delayed more than fourteen working days owing to the members of labor organizations refusing to work on days generally recognized as working days, a contention that, the practice of such labor organizations being known to ship owners, the delay should be excused, under the clause relative to customs of ports, was without merit, since the custom of labor organizations in the port of Pensacola, and their manner of refusing to work, being known to the charterer of a ship, if he wished to protect himself from the results of their refusal to work on days generally regarded as working days he should so provide in his charter party. Hagerman vs. Norton, 105 Fed. Rep. (U. S.) 996.

Marine Insurance—Contract—Modification by Course of Dealing.—Libelant exported large quantities of dental goods of its manufacture, and for more than thirty years carried an open marine cargo policy issued by respondent, renewed from time to time, under which it insured all its shipments, except where its consignees had insurance. The policy provided that no risk should attach until approved and indorsed thereon by respondent, the premium to be then agreed on; but by a course of dealing between the parties, extending over many years, and adopted for mutual convenience, owing to the large increase in libelant's foreign business, no indorsements were made on the policy, nor was each risk approved before it attached thereunder, but was reported by libelant on receipt of the bill of lading on a slip furnished by respondent for the purpose; respondent entered on each slip the rate and amount of premium in accordance with a schedule agreed upon between the parties, and at the end of each month transcribed the entries thereon into a pass book, which it also furnished libelant, and indorsed its approval thereon. It resulted from this method that respondent usually did not receive notice of a shipment until after the vessel had sailed, and frequently not until it had reached port; but the risks were treated as covered by the policy from the date of shipment. Respondent did not notify libelant of the acceptance of risks, but it had never rejected a risk because of any objection thereto. June 30, 1898, libelant shipped a consignment of goods from New York on La Bourgogne, a vessel of a line by which it had frequently shipped, which vessel was sunk in a collision on July 5. Libelant received the bill of lading July 5, and on the morning of the 6th, and before the notice of the loss sent the usual slip stating such shipment to respondent. The loss became known before the slip was received by respondent, and after some delay it rejected the risk. Held, that the course of dealing pursued by the parties under the policy for so many years operated to abrogate and supersede its written provision requiring each risk to be approved before it attached, and bound respondent to accept the risk in controversy, which was within the requirements of the policy in respect to the kind of goods, character of the vessel, and port of destination, and in all respects similar to others which had uniformly been accepted. S. S White Dental Mfg. Co., vs. Delaware Ins. Co., of Philadelphia, 105 Fed. Rep. (U. S.) 643.

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CLEVELAND, O., MARCH 21, 1901.

THE "blue ribbon" of the N. Atlantic is chiefly sought for as an advertising medium.

THE DeWitt Clinton ditch, otherwise known as the Erie canal, is likely to remain in about its present condition.

GERMANY is marshaling her forces along so as to become the leading maritime nation, unlike other powers, she is going the right way about it, too.

GOV. ODELL, of New York, evidently believes that nature has pointed out the outlet to the coast from the Lakes and is agreeable to let it go at that.

A SHIPMASTER should be master on board of his vessel at all times, and more especially so if she is in trouble. He is the accredited agent for all concerned and the special representative of his owners.

THE shipping subsidy bill is not downed. It has simply undergone an enforced set back until the next session of Congress. It experienced a relapse as it were, but only to be prosecuted with more vigor in the future.

IT IS a pleasure to note that the terms freight and cargo are being more generally recognized. Once again let us state that freight is the money earned for carrying cargo. This is nautical parlance as it differs from railroad.

THE thanks of the MARINE RECORD are due Hon. Sumner I. Kimball, General Superintendent U. S. Life-Saving Service for a copy of the latest rules and regulations governing the service, as approved by the Secretary of the Treasury and endorsed by President McKinley.

WITH a depth of thirty to thirty-five feet of water and a well marked and lighted channel, Montreal need have little fear of any commerce passing her portals bound east or west. The combination tonnage adapted for lake, canal, river and Atlantic use need not bother her a particle.

THE St. Lawrence route, river and gulf, or from Montreal to Anticosti, is a dangerous stretch to travel. It is recorded that between 1889 and 1899 twenty-eight ocean going steamers were totally lost and eighty-four strandings occurred, fifty of the latter between Quebec and Montreal.

THERE is a strict line to be drawn, and it can not be drawn too firm, between spending the people's money for Federal improvements such as would trend towards benefiting the entire country, and that which is expended to enhance the commercial facilities or prestige of a locality. This should be the key note in all river and harbor appropriations.

THAT FEDERATION OF EMPLOYES SCHEME.

At the last annual meeting of the Lake Carriers' Association, held at Detroit in January, the project of drawing together all employes in lake service into a mutual assistance and benevolent society was fairly discussed, a committee was appointed, and, as a body of influential shipowners appeared to favor the measure, the beneficent result seemed on the way of accomplishment. An uneasy feeling in labor circles developed during the winter and a special effort was made to discredit the employer and employes insurance club innovation; in point of fact, the employes had no voice in the matter at any stage of the proceedings. The owners originated the idea, and to float it, volunteered to assess their tonnage at a certain rate for the year, so as to partially support the "it," presuming that a hint would be simply sufficient to make all masters, engineers, mates, wheelsmen, watchmen, cooks, stewards, etc., plank down their little monthly installment for the general good and welfare of the community, and there the matter rests, moreover, it is likely to be held in abeyance for quite a little while, unless all precedents and signs fail.

We have conveyed the impression on one or two occasions, or tried to, that a general mixing up of interests on shipboard would not work, nor could the impracticable originator of the scheme make it apply on one boat out of fifty, for reasons too obvious to waste time in mentioning. Let us say further, however, that not only was the accidental, mutual benevolent portion of it to be developed, but an employment feature was also brought in, as masters and engineers were to give the preference to members in shipping a crew or any individual member thereof.

The most visionary scheme to be sprung before a labor-loving lake community was the Protective Shipmasters' Association, that was borned and growed and died all within a month; it had even less merited vitality than the federation bubble, though in the first fresh dawn of its mushroom growth, numbers, meaning members, were not wanting, but the structure was started on an unstable foundation, and as we have said, so speedily collapsed that even the fall thereof was not heard, so that the less said about it the better.

In connection with the foregoing, and as it applies with equal force to each of the would-be organizations, we quote as follows:

"One of the leading members of the Detroit Shipmasters' Association has received a letter from a master at Milwaukee, stating that the attempt to organize a branch of the Protective Shipmasters' Association in that city has failed. The writer expresses his hope that the movement will be utterly abandoned. The local shipmasters want it understood that they are not in any manner connected with the protective association. The Detroit Association feels that masters should preserve a certain dignity and not affiliate with longshoremen and other employes of boats in sympathetic union. By this the shipmasters do not mean that there exists an aggravated case of "swell head," but they reason that as they are to command a ship when she is carrying perhaps millions of money in cargo, or hundreds of human lives, no union would be proper with lower employes of the boats which would make it possible that the captain should be dictated to at the whim of his subordinates."

Pretty clear, decent language, this, and just what one might expect from men who had shouldered and realized their personal responsibilities. Shipmasters are usually given all the dictation that they can carry, and put up with as many whims as there are points to the compass, including the lubber's point, this especially being the hardest to take aboard. For, after all is said and done, he who is chief must be the servant of all. Has, perforce, to depend on others for that which others can do for themselves, holding his job as a dependent being one of the chief dependencies. Having pointed out the failure of unworkable, possibly illegitimate, and positively not technical plans, we suggest that the practical lake marine community exercise more than ordinary circumspection before stepping into such positions as may lead to their future embarrassment in revoking, reviling or ridiculing that which they had thoughtlessly endorsed during a less guarded moment, and of such are some of the unions and associations.

ROWBOATS—METAL VERSUS WOOD.

There are boats and boats, boats of various forms, and boats built of wood, galvanized metal, sheet steel and seamless steel. To accept the words and demonstrations of the sellers or manufacturers of the metallic and steel boats, one would never put anything else on board of his craft.

So persistent are these metallic boat builders and their agents that it has been a question in the minds of even practical men whether there was not some merit attached to what might be termed the new fashioned construction, and, as if further to support the temporary delusion, the Board of Supervising Inspectors of Steamboats appointed, as is their rule, a committee on the subject, and eventually that body of experts endorsed and recommended the peculiar innovation to be adopted in the mercantile marine for ships' life-boats, since which time their manufacture has grown to rather large proportions.

Perhaps through a mild prejudice, or from an innate sense of the unsuitable, we have always looked somewhat askance at these riveted sheets of galvanized metal shaped into boats; also, having in view the possible use of them in all sorts of weather and various latitudes, the feeling has not tempered down any while these boats have been flooding the country during the past decade.

Shipping people, as a rule, are outspoken in their impressions, *pro* or *con*, the managerial end of the business orders metallic boats, the local inspectors of steamboats pass them according to instructions, and they are accepted as capable, seaworthy life-boats without a murmur coming from any quarter, consequently, the riveted galvanized steel sheets or seamless steel boats for ships' decks are to be seen numerously; therefore, as we hear of no complaints, it is assumed that they answer for all purposes as well as the wooden boats.

In an editorial on "Boat Drill" we remarked last week, "that men are not sailing around expecting to drop boats in the water at every whipstitch," per se, metallic sheets riveted together in the shape of a boat seem to be good things to keep on deck when engaged in trading exclusively in the temperate zone, and in fact at all times and under nearly all conditions.

A life-boat, as its name implies, is for use principally in saving lives; now, if we place a metallic boat alongside of a wooden boat, in the extremes of temperature, the result to the occupants need not be foretold, as it would only be a question of final endurance. The metal vessel would either heat or soon ice up, while the wooden boat would not undergo the extreme expansion or contraction so dangerous to the construction and insufferable to the occupants of the galvanized metal boat.

That we are not alone in our views of the life-saving properties of these classes and forms of rowboats, attention may be directed to the latest and best extant, viz., the practice of maritime nations in their naval tonnage and the boats required for use in the departmental service. Here we don't find metal boats very much in evidence, but rather, on the other hand, conspicuously *non est*. Then we may take the highest classed tonnage in the mercantile marine as represented by the largest passenger lines, even to those solely engaged in the equably climatic temperature experienced in the North Atlantic trade, where we find rows of rowboats ranged along each side, but look in vain for the rows of metallic rivets used to hold the metallic sheets in place.

Then if we come down to the smaller class of tonnage in the merchant service and coasting trade, where boats are boats and used, as we might say, for general utility purposes, there are no double-ended or square-sterned metallic floaters to be discovered in this list, and, finally, taking the millions of pleasure boats, from a two-seated dinghey to a sixteen-oared gig or outrigger, the solitary metallic boat, if found, in the form of a cigar-shaped catamaran or under any other guise, is noted only as some crank's craze. Where, then, it may be asked, are the thousands of metallic boats placed? Well! they go on ships' decks or chocks and generally remain there quite a while, they keep well and only require an occasional coat of paint. In a word, metal boats are all right in their place, and that place is where they are not likely to be used or knocked about very much.

It is quite true that wooden boats have lain idle in their chocks until they would almost drop to pieces if moved, as for instance, some of the old-time long boats, stowed on chocks amidships and used variously as a storage place for ships' gear, provision locker, sheep pen, or for any other purpose, according to the exigency of the moment, time or place, but the days of throwing a drunken sailor into the longboat 'till he got sober are over, and a more suitable alternative now prevails, both for Jack and the boat.

We have not had the unpleasant experience of being castaway in a metallic life-boat, but, given a fairly good wooden boat, properly trimmed and well handled, and she will survive an incredible amount of bad weather in any climate. Can so much be reliably said of and for the metallic structures?

THERE is so much now being said and written about men holding government licenses for use on shipboard that the time would be most opportune for measures to be taken looking towards these certificates meaning more fully what is claimed for them. We would have the examinations such, that a shipmaster would be capable of taking charge as master on rivers, lakes, coast or ocean, so also with chief engineers. The foregoing is no doubt about a decade ahead of the times, but it is the only logical reason for candidates undergoing a voluntary examination. A shipmaster holding a license out of any sea port would not think of relinquishing his command because he was ordered to Chicago or Duluth, any more than if he was ordered to New Orleans, but a lake shipmaster can't jingle a bell the other side of Ogdensburg, although he may be considerably more expert than his bretheren on the coast. Engineers' licenses are similarly affected. Someone has said that it's a poor rule that won't work both ways. Is it not, therefore, apparent that there is a hole in the skimmer somewhere? We have referred to this paradoxical feature of government licenses on previous occasions and will return to the subject at greater length in the near future.

THERE is now some chance of finding out why the City of Rio de Janeiro piled herself up off 'Frisco, along side of a life-saving station, also a fog bell, in charge of her usual complement of officers and a qualified pilot. If the inquiry had been left in the hands of the licensing board of the steamboat inspection service, the result would probably have been nil, but it has providentially taken such a course as to come under the notice of the Light-House Board and that splendidly handled department known as the U. S. Life-Saving Service. There is no "flummery," which is another word for ambiguity of terms and purpose, permitted in the Light-House or Life-Saving curriculum, it's a case of walk the chalk there, or get off the plank. As we have said, the propeller put the old tank where she finally fetched up, and it had done it before, now we want to know what was behind the propeller besides deep water, and, and?

OF ALL the blessings that go toward making an easy mind, we would say that the chief one, to the man that has lives and valuable property under his care, is to know that he has a good, safe harbor under his lee. Comparatively land-locked as the lake pilot is, there is every possible reason and argument in favor of his getting his ground tackle into good holding bottom, and taking the heft of a blow out of the ring of the anchor instead of "batter-fanning" on the lake straining his vessel and eating up fuel to no purpose. With the beginning of the season, there is no reason why an exact record could not be kept of all weather-bound vessels seeking a harbor on each lake, then, we would perhaps know more about some of the much vaunted harbors of refuge. A list of the craft thus seeking anchorage would no doubt help along Congressional appropriations in the next river and harbor bill.

MEDALS are being struck off for those who sailed into Manila Bay with Admiral Dewey, similarly so for the Santiago heroes who chased the Spanish fleet along the south side of Cuba. It is understood that on one side of the medal a profile view will be shown of the heads of the Admirals in charge. Let's see, didn't our Uncle Samuel ship all hands from the chief cockalorum down to the jimmy ducks? Wasn't they all paid off according to service rules? If there is any stamping of profiles to be done "E. Pluribus Unum" should be in it for all the tokens are worth, as opposed to individualizing nation's employes. How will the blue jackets stomach the Admiral Sampson physog anyway, knowing as they all now do his feelings towards them. It seems as if some national employe was trying to make a bull of the naval medal business also.

THERE is no doubt but that it would be greatly advantageous if the Weather Bureau adopted the International Maritime Code of special distant signals in making or heralding meteorological weather forecasts. The cone, ball and drum are better known, more distinctive, visible and lasting, and in every way superior to the present use of bunting.

THE thanks of the RECORD are due Hon. Eugene T. Chamberlain, Commissioner of Navigation, for a copy of the new International Code of Signals. The use of the new code is optional this year or will be used concurrently with the old edition. January 1st, 1902, the new edition alone will be officially used.

WHETHER lake marine engineers are seeking berths on vessels or not their names appear regularly as being appointed. As it is not usual to force men to take good paying positions, it would seem as if the publication of their names had their acquiescence. On the other hand, a sort of strike condition prevails, in so far as certain demands must be complied with before an engineer will join the craft that he has been told off to fit out. Of course no agreements have yet been signed or the situation would bear an entirely different aspect, providing the engineers' association was an incorporated body.

THE U. S. Consul at Copenhagen, Jno. C. Freeman, Esq., recently informed the Department that the United Fruit Co. is adding to its fleet two steel steamers to be used in carrying fruit on the Great Lakes. This is the line trading between the West Indies and New York under the Norwegian flag, but supposed to be owned by American citizens. It is just possible that our consul has been misinformed regarding these steamers for the lakes, or there are avenues to be developed in the fruit trade of which we have no present knowledge.

WHILE the National Masters' and Mates' Association of Canada are petitioning their government for a change in passing signals so as to conform with the practice on this side of the international boundary line, it would be advisable to embody the several and various clauses contained in the "White" bill, and by so doing make the "Rules of the Road" uniform as between the two countries. The counsel of the association, Thomas Mulvey, Esq., Proctor in Admiralty, Toronto, might possibly lay the matter before his government while parliament is in session.

APROPOS lake drainage. An outlet, level with the bottom surface, can but maintain the upper or lake surface level. As water presses at its base and altitude, the deeper the outlet is made the greater the outflow. The contour of the bottom surface should be borne in mind as well as the upper surface or original lake level. We are also told that there is no level so true as a water level. In a word, a vessel, say a cask, filled with water, will overflow a superfluity, start the bung out and it will do more.

WE would like to see a concise explanation of Act 4427, Title 52, of the Revised Statutes, amended so as to read that vessels not carrying passengers may be entitled, authorized and licensed so to do by a District Supervising Inspector. These people are to be in addition to the crew, yet they are to carry on the legitimate business of the boat, to be furnished with life preservers, but not to be paid anything for their hire or services. Now what does such trashy legislation mean?

THE attention of our readers is called to the column headed, "Shipping and Marine Judicial Decisions," collaborated specially for the RECORD. By a close perusal of the various cases cited, an accurate judgment may frequently be formed in circumstances coming under the reader's own knowledge or experience. We have considered these digests of more pertinency and general information than printing a single case in full each issue.

WHERE shipping is done on the coast, in the office of a shipping commissioner, the members, or any member of a crew not unfrequently backs out of going in a ship at the moment of signing articles and this after seeking the berth and previously making a verbal agreement to go in her. There is no binding agreement until the articles are signed, after which, a certificate is necessary from a medical practitioner showing that the man is unable, etc., to join.

LET it be understood that the law now permits the carriage of automobiles in steamboats, but all fire must be extinguished before the vehicle is shipped. This right, however, is only granted on sufferance, as an owner, master, agent or other person in charge may refuse to transport an automobile vehicle having naphtha, gasoline or other dangerous burning fluids in its tanks.

WE commence the first chapter this week on the rules for handling rowboats, as in use by the (British) Royal National Life Boat Service. The series will include three chapters, and will be found valuable to those in practical lake service. At a later date we trust to be in a position to print the custom and practice observed in other maritime countries.

THERE is just a possibility that some of the States will go on legislating regarding the tonnage taxation of vessels until they run butt into the United States statutes relating to interstate commerce. It is generally known that States are not permitted to discriminate against each other. Making people furnish funds for the lawyers is a good deal like feeding food to the fishes, they'll take all they can get and look for more, and it is just such ill considered legislation that will let them get it.

FRANCE has been rushing her submarine boat building to such an extent that she has stirred up her neighbor across the channel. If Johnny Crapo can't have that tunnel he's bound to keep John Bull on tenterhooks expecting the delivery of a sudden blow channel-wise. It's a good thing for neighboring powers to dwell nearly together in peace and amity. About thirty years ago France learned the lesson that the British is now being taught in South Africa.

CANADIANS are now guessing which should be made the national port on their eastern borders, Quebec or Montreal. There ought to be no guess coming in the matter, as it is the clear duty of the government to reach the highest navigable point from the Atlantic. The same reasoning applies to the lake trade, the object being to reach ocean bottoms at the nearest safe port, viz., Montreal.

ON account of the revision of the "International Code of Signals," the crews of lake life-saving stations may indulge in a little mental exercise this season. Wonder if any one has ever sighted a code signal hoisted on the lakes? The licensing board ought to add the semaphore code to the examinations, though as it can be worked at short distances at no cost to the vessel.

WE have received from the Department of State, through the Bureau of Foreign Commerce, a volume giving a review of the world's commerce introductory to commercial relations of the United States with foreign countries during the year 1900. The Department of State is to be congratulated on publishing the annual report a month in advance of the usual time.

THE Georgian Bay canal project is now assured, a new syndicate having taken hold of the undertaking. It is the intention to accept grain bills of lading from Chicago and Duluth, via Georgian Bay, French River, Lake Nipissing and down the Ottawa River to Montreal. Of course nothing will travel waterborne that way this season.

LAUNCH OF THE JUPITER.

The steel cargo steamer Jupiter, built at the Lorain, O., yards of the American Ship Building Co., to the order of J. C. Gilchrist and others, was successfully launched on Wednesday afternoon.

The Jupiter is the last of a fleet of four steamers built at the Lorain, O., yards for the same owners. Her dimensions are: Length, 366 feet over all; 346 feet keel; 48 feet beam and 28 feet deep. The keel has just been laid for a freighter to be built for Mr. Peevey, of Duluth. She will be 450 feet long.

The christening of the Jupiter was gracefully performed by Miss Fay McCrea, of Cleveland. Among others in the launching party were: Mrs. McCrea, Mrs. J. P. Gilchrist, the Misses Gordon, Converse and Perry, of the Maude Adams Co., the Misses Carpenter, Curtis, Morgan, White, Croxden, Evelyn, Curtis and Arnold, Lieut. H. C. White, Ed. McKay, Bart Tucker, Messrs. Van Duzen, McCrea, Dodge, Julian Tyler, Will Curtis, W. B. Gilchrist, J. A. Gilchrist, A. J. Gilchrist, Mr. and Mrs. Mitchell, Capt. Lou Weeks and F. A. Graver, also Mr. J. C. Wallace and R. C. Wetmore representing the builders.

THE Falls Hollow Staybolt Co., Cuyahoga Falls, O., are now rolling hollow bolts by their recently improved process which enables them to produce hollow bars of iron or steel on an average of eight feet in length of any size outside or inside diameter and perfect in every detail. The bars are all ready to cut, thread and apply, thus saving the time of drilling tell-tale holes, which is not only expensive but injurious to a staybolt.

JAMES GORDON BENNETT has sold his yacht, the Namouna, to the Venezuelan government, for $100,000, and his new yacht, the Lysistrata, which realizes many ideas gathered by Mr. Bennett during his life-long career as a yachtsman, has just made her trial trip.

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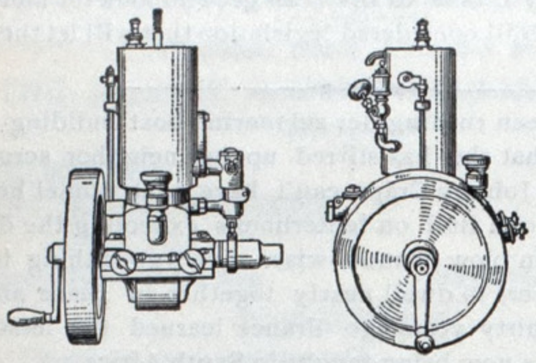

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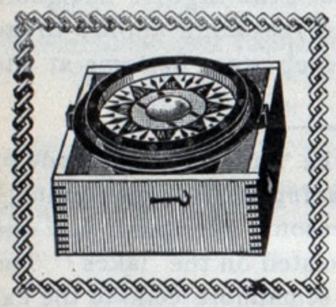

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THE DOMINION PARLIAMENT.

ST. LAWRENCE CANALS AND INSURANCE.

The Government, said Mr. Bennett, should call a halt on public expenditures on railway projects, give a square denial to the statements that they are going to take any new schemes, and stand by the St. Lawrence canals. This would give the shipping interests an opportunity to rise equal to the necessities of the transportation question, and by increasing the grain trade through Canada cut into the trade of Buffalo. Some encouragement should be given to the Canada-Atlantic system, and the Grand Trunk system, if they would carry more grain.

Hon. R. R. Dobell held that the Government had always declared its policy on the transportation question to be the opening of every avenue possible that would help the grain trade of the Canadian Northwest and the Northwest States through Canada. They would carry out any improvements by rail or water to advance this policy. The great question was that of winter navigation on the St. Lawrence, the great difficulty in the way of this being the insurance rates on the St. Lawrence after Sept. 1. On account of the insurance rates the G. T. R. was wise in taking its grain trade to Portland. He himself was absolutely convinced that the difficulty from ice to winter navigation on the St. Lawrence was nothing like what Russia was combating on the Black Sea and the Baltic. There was occasionally in March or April special difficulty from the northern ice. But the snowstorms on the St. Lawrence, which they had heard much about, were no worse than snowstorms in the English channel. If Canada could only establish winter navigation on the St. Lawrence, the G. T. R. would soon discover the mistake it had made in making its port at Portland.

Hon. J. Haggart asked for the insurance figures and the losses of the underwriters. Mr. Dobell was unable to give the figures; he found it impossible to get them. But he would give a few instances which had been mentioned to him by Mr. Clergue that morning. Mr. Clergue sent three or four steamers across to England last fall (Dec. 4), from Montreal. The insurance on those four steamers would be $25,000, and the value of their freight $50,000. Mr. Clergne decided to take the risk on three and insure one. He cabled to Lloyd's and got 60s. as the rate; but when he went to London he found that the underwriters had rewritten the risk in Hamburg at 20s. Mr. Dobell himself had an experience sending a steamer from Bic, and had paid 14 and 15 per cent. He believed that if Canada could establish a strong insurance company, one-third, at least, in the cost of insurance on the St. Lawrence would be saved. A great deal would be accomplished if they could get the season extended from September to February. The discrimination for the rest of the year would gradually be removed.

Mr. Shaughnessy was given as authority for the statement that if winter navigation from Quebec could be secured he could ship 350,000 tons of cargo, which would be equal to 70 steamers. Elevators erected at Quebec or Point Levis would have the greatest advantage, owing to the dry climate.

Col. Sam Hughes: What about Montreal?

Mr. Dobell: I would not belittle Montreal at all. He appealed to both sides of the House to help in securing reduction of the insurance rates.

After Mr. Roche (Halifax) had spoken, Mr. Bickerdike expressed the opinion that the insurance rates would be reduced. What was wanted was a 14 foot safe channel in the St. Lawrence to Montreal, and 30 foot channel from the sea, the whole route 500 feet wide and adequately lighted.

COMMON SENSE IN ENGINEERING SPECIFICATIONS.

Good judgment and common sense are matters of primary importance in drawing up an engineering specification. The purpose of such a document may be said, very briefly, to be the attaining of a certain result for the least amount of money compatible with proper execution of the work involved; but, curiously enough, the stipulations sometimes made in a specification, and with the best intentions, too, defeat that very object. An excellent illustration of this point was given recently by Col. Denny, of the well-known Dumbarton firm of shipbuilders, in his presidential address to the Institute of Marine Engineers. In this he told of a specification for an engine received by his firm some time ago which was so overloaded with what might be called fads, or, at any rate, with what might quite well have been dispensed with, and consequently contained so many names of persons who were to supply particular pieces, that the price was enormously increased. The engine was one which would have cost £70-000 if his firm had been allowed to design it, and supply it with an absolute guarantee that the work would be just as well done as by the other. The additions referred to and the naming of people to supply various materials brought the price up to £90,000, and threw the whole of the responsibility not upon the engine builder, but upon the engineer who drew the specification, and who had no right to have such a responsibility upon him. The immediate procedure of an engine builder when he gets such a specification is to communicate, at once, with every one of those specially named, stating that their name is in this specification to furnish, a certain part, and asking for their price. Probably nineteen or twenty other firms bidding for the job do the same thing, and the result is that it is impressed upon those makers of specialties that their product must go into the work. And what do they do? Very naturally, make their price a first-rate paying price. In the case specially considered by Colonel Denny there was a difference of about 100 per cent. between the prices of several of the articles called for and those at which his firm could have supplied something equally good. The lesson is obvious.—From Cassier's Magazine for April.

TREASURY DECISIONS.

MILWAUKEE, WIS., ESTABLISHED AS AN IMMEDIATE TRANSPORTATION PORT.

TREASURY DEPARTMENT, March 6, 1901.

To officers of the customs and others concerned:

The appended act of Congress extending the privileges of the immediate transportation acts of Milwaukee, Wis., approved February 20, 1901, is published for the information of all concerned.

O. L. SPAULDING, Assistant Secretary.

An Act To extend the privileges provided by an Act entitled "An Act to amend the statutes in relation to the immediate transportation of dutiable goods, and for other purposes," approved June 10, 1880, as amended.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the privileges of immediate transportion is provided by an Act entitled "An Act to amend the statutes in relation to the immediate transportation of dutible goods, and for other purposes," approved June 10, 1880, as amended by an Act entitled "An Act to amend an Act entitled 'An Act to amend the statutes in relation to the immediate transportation of dutiable goods, and for other purposes,'" approved February 23rd, 1887, be, and the same are hereby, extended to the portof Milwaukee, State of Wisconsin.

Approved, February 20, 1901.

SAGINAW ESTABLISHED AS AN IMMEDIATE TRANSPORTATION PORT.

TREASURY DEPARTMENT, February 16, 1901.

To officers of the customs and others concerned:

The appended act of Congress, entitled "An Act to extend the privileges of the seventh section of the immediate-transportion act to Saginaw, Michigan," approved February 11, 1901, is published for the information of all concerned.

O. L. SPAULDING, Assistant Secretary.

An Act to extend the privileges of the seventh section of the immediate-transportation act to Saginaw, Michigan.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the privileges of the seventh section of the Act approved June 10, 1880, governing the immediate-transportation of dutiable merchandise without appraisement be, and they are hereby, extended to Saginaw, Michigan.

Approved, February 11, 1901.

Right to Abandon under Marine Policy.—A marine insurance policy required that, in case of loss, the assured should use every effort for the recovery of the vessel, and after its recovery should cause it to be repaired, and, if assured neglected to do so, the company might do it for the assured's account, and provided that there was to be no abandoment as for a total loss on account of the vessel grounding, unless the injury sustained was equivalent to 50 per centum of the agreed value of the vessel. Held that, in action on the policy for loss of a vessel by sinking, it was proper to instruct that, if the expense of repairing was equal to or greater than one half of its value, then the assured had a right to abandon it, but if assured unreasonably refuses to join the company in raising the boat, when it could have been raised and repaired at less than 50 per cent. of the agreed value he was not entitled to recover the whole of the policy. Jones et al. vs. Western Assurance Co., of Toronto, 47 At. Rep. (Pa.) 948.

COST OF OWNING COLONIES.

"Although the United Kingdom of Great Britain and Ireland is not the oldest of the colonial powers, being outclassed in that respect by Spain, France and Portugal, her colonies are to-day by far the most important, both in regard to their extent and population, whilst the commerce of the British colonies is greater in volume than that of all the colonies of all other powers put together. If we include India, the colonies of England cover an area of 9,000,000 square miles; and if to this we add the area of British protectorates and spheres of influence, the total area subject to British rule is 11,000,000 square miles. The smaller area, that of the colonies and India alone, supports a population of 367,000,000; the larger area about 420,000,000, or, roughly speaking, six times the population of the United States. As a colonial power, France comes next to England, but at a great distance behind. The French colonies, including Algeria, Tunis, and all protectorates and spheres of influence, have an area of 3,500,000 square miles and a population of 53,000,000. Next comes Germany, whose colonies and protectorates have an area of 1,000,000 square miles, and a population of 11,000,000. The Dutch colonies have an area of 800,000 square miles, and a population of 33,000,000. As compared with these, the colonies of the United States cover an area of 125,000 square miles, and have a population of 9,000,000. A most interesting point in connection with the colonies of the European Powers is whether they are a source of profit or of loss to the sovereign state. In regard to this we may compare the colonies of England, France and Germany. The British colonies receive nothing from the imperial treasury, and contribute nothing to it. This does not, of course, imply that under special circumstances, such as those created by the disastrous hurricane in the West Indies some two years ago, no financial aid is given by England to her colonies, but merely that each colony raises its own revenue without depending on England in any way. Both Germany and France, however, pay out anually large sums of money for the administrative expenses of their colonies, scarcely any of which are self-supporting. France pays yearly about £2,800,000, and Germany about £1,000,000. It has been stated that, although England's colonies are not a source of direct expense to the mother country, they are so indirectly, for it is the possession of the colonies which necessitates such enormous expenditure for the British Navy. This is a mistaken idea. Even if England owned no colonies, she would still have to keep her navy at its present strength for two reasons: because it is her first line of defence, and because her carrying trade, which forms about 60 per cent of the carrying trade of the world, must be protected."—From the March number of the Windsor Magazine.

THE St. Mary's River Bridge Co. are seeking rights at Ottawa, to build a bridge between the two "Soos." Why not wait awhile, gentlement, until the Falls run dry through the consumption of water at the power canal, then build a macadamized Roman road if you want to. Such a dyke across the Falls would show Lake Erie how to do it below Buffalo.

NOTES.

THE Roberts Boiler Co. furnished last year to the Craig Ship Building Co., of Toledo, a battery of four Roberts' boilers, which indicated about 1,600 horse-power, in the new steamer Chippewa. Three of these boilers gave all the steam that the engine could use with natural draft. She is 208 feet over all and 16 feet draft. Her regular speed is eighteen miles an hour and she has made 22½ miles in one hour. As the result of the success of the Chippewa, the Roberts Co. are now building boilers for the same shipyard as follows: Two batteries of four 500 horse-power boilers for each of two fast steamers which will each be 260 feet long, making eight boilers in two steamers. Also two batteries of two 500 horse-power boilers each for two smaller steamers 180 feet long. This makes a single order of 6,000 horse-power of Roberts' boilers. This speaks well for their reputation on the lakes.

IT appears that the trouble at the naval observatory is not altogether of a merely personal nature. It involves the old question whether the observatory should be under the superintendence of a line officer of the Navy or of a professional astronomer. The latter view has been held by the astronomical profession at large and also by such secretaries as Secretary Tracy and Secretary Long. This view is grounded not so much upon any impossibility of finding persons qualified in the line of the navy or upon any dissatisfaction with the present incumbent as upon the fact that the frequent changes of duty to which naval officers are subject at short intervals prevent continuity of administration and also upon the general principle that the appointment of superintendent should be made from persons in or out of the naval service without restriction to any class and should secure the most accomplished and competent astronomer that can be found anywhere.

A FIRM, consisting of several brothers, gave their shipbuilders an order for a handsome, speedy schooner. As she was intended for the fruit trade, the latter quality was a sine qua non. The vessel was put together with the greatest care and her fine, splendid lines were the admiration of all beholders. As the time drew near for launching, a name had to be selected and frequent were the consultations had on this subject. One name was too long, another too short, fifty other suggestions simply duplicated the names of previously built tonnage, and as many more were considered inappropriate. Finally, the day arrived when a name had to be furnished and the same old rehearsal was gone through with, until at last, one of the brothers in a petulant sort of mood reached for his hat and was about leaving the office when he was asked to make another guess; he immediately replied, "Oh, the Devil," a term which they all centered upon, and as such she was duly christened. Although but about three decades ago, we were yet in the figure-head age, and she was given a beauty, a Satanic Majesty in full blossom, with all of the well-known appurtenances, including the caudal appendage, horns, pitchfork, etc. The schooner had the speed that she was built for and made some remarkably fast passages, still it was a little strange to see in the shipping lists that the "Devil" was spoken in a certain latitude and longitude, or the arrival and clearance from loading and discharging ports. Eventually, the unique name, coupled with the famous passages, spread so that large numbers of people visited the craft while in port, and the figurehead had to be encased or draped with a tarpaulin, as that being also an object of curiosity to sightseers.

MARINE PATENTS ISSUED.

Patents issued March 5, 1901. Reported specially for the MARINE RECORD. We furnish complete copies of patents at the rate of 10 cents each.

669,144. Buoy for ships. W. M. Noyes, Montpelier, Vt.

669,179 Apparatus for carrying and launching life boats. W. F. Powers, Wilmington, Del.

669,230. Steering machinery. A. B. Brown, Edinburgh, Scotland.

669,235. Steering apparatus. L. S. Gardner, New Orleans, La.

669,276. Submarine mining machine. A. Allen, Spokane, Wash.

669,301. Steering machinery. J. L. Boothman, Greenock, Scotland.

669,467. Apparatus for raising and conveying sunken bodies. M. M. J. O'Conner, Drumshambo, Ireland.

Government Proposals.

U. S. ENGINEER OFFICE. Custom House, Cincinnati, Ohio, March 6, 1901. Sealed proposals for building 500 feet length of Chanoine dam of navigable pass at Dam No. 2, Ohio river, will be received here until 2 p. m., April 10, 1901, and then publicly opened. Information furnished on application to WM H. BIXBY, Maj., Engrs, at this office, or to WM MARTIN, resident engineer, Davis Island Dam, Bellevue, Pa. 10–14

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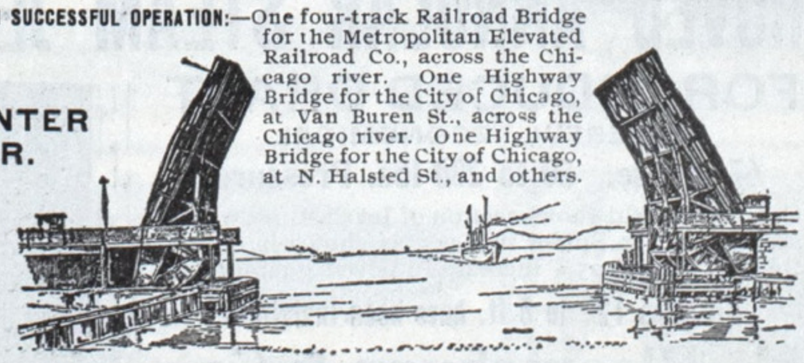
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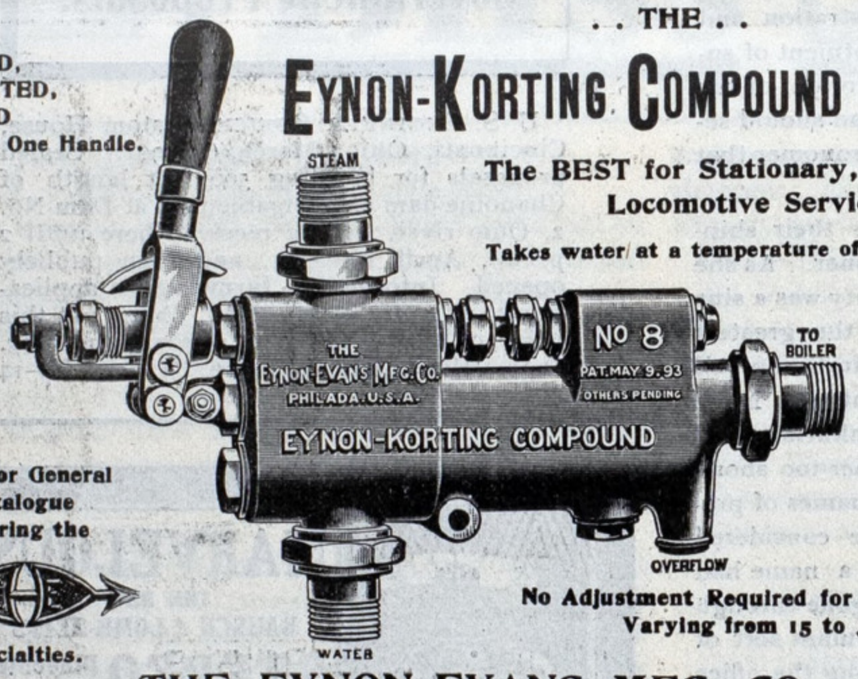

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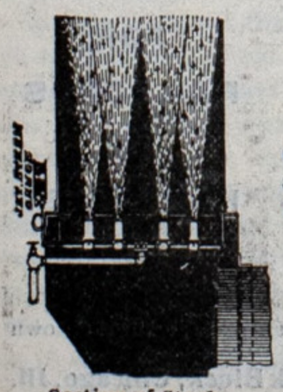

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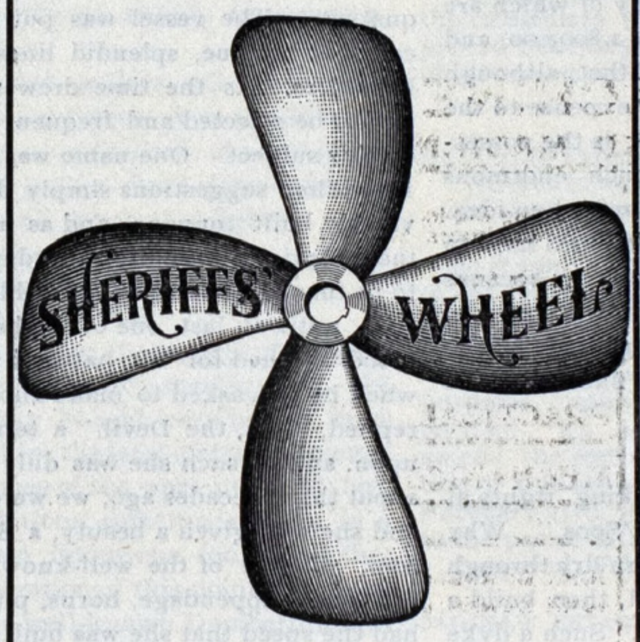

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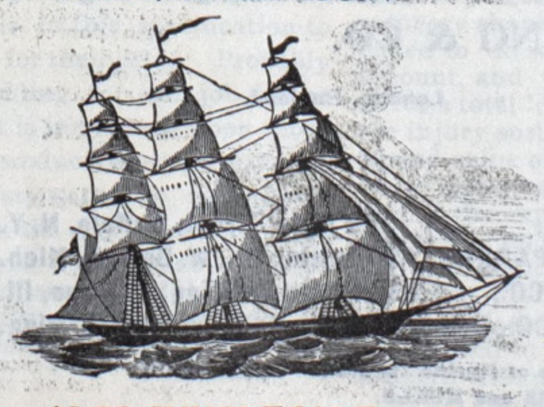

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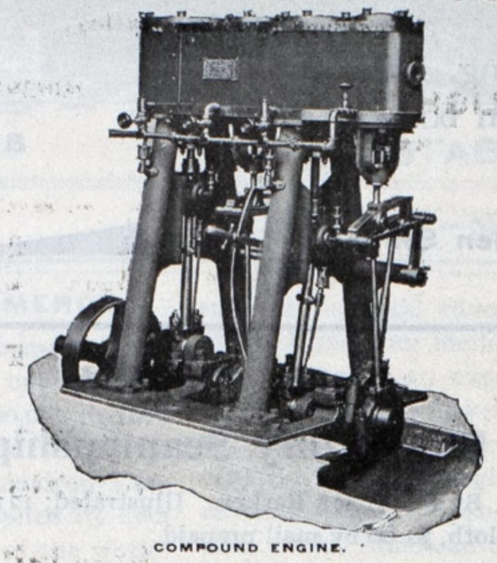

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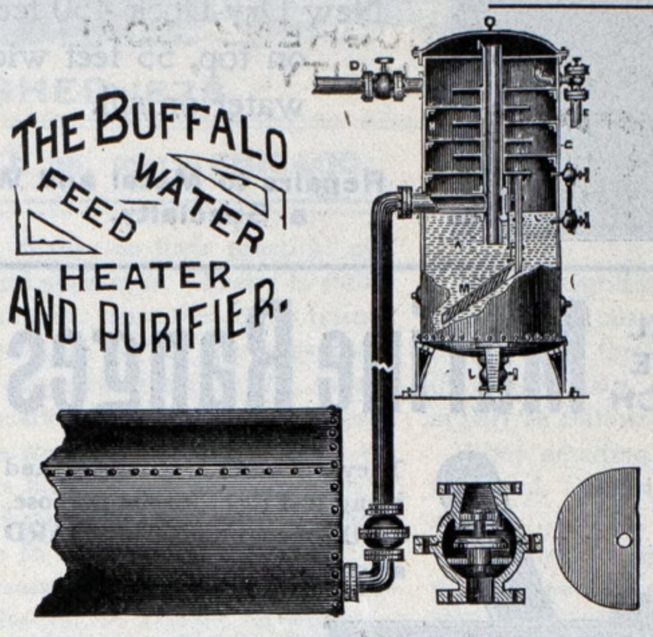

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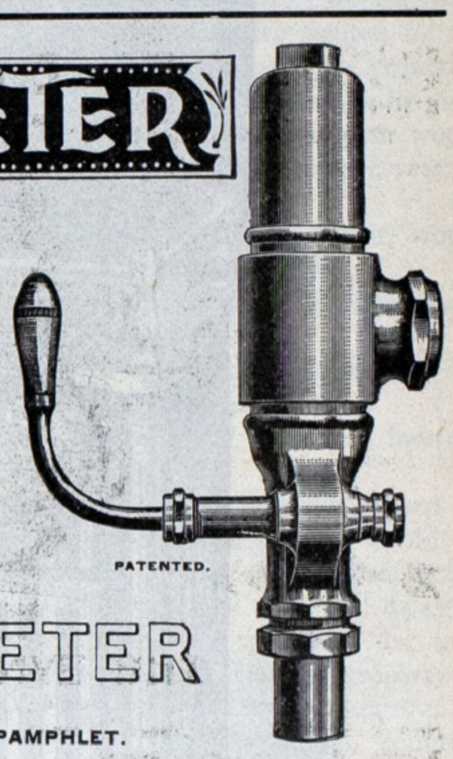

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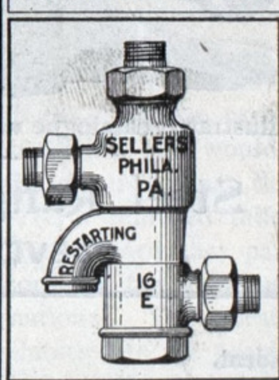

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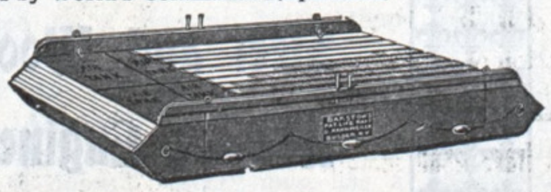

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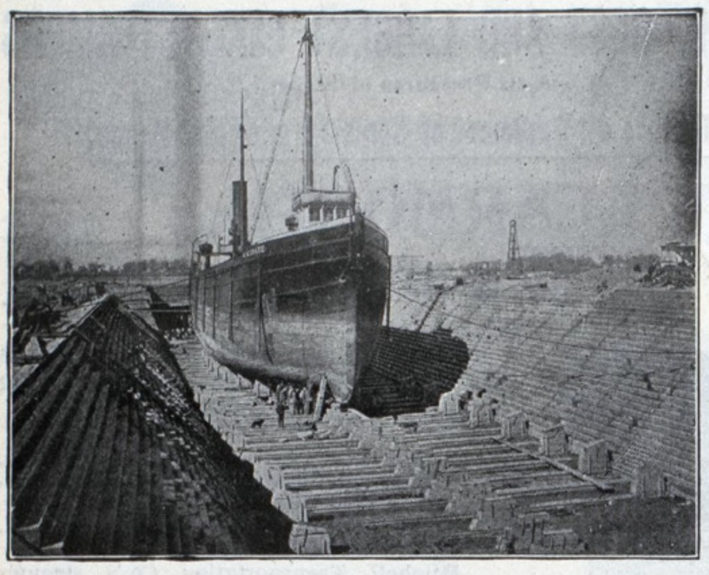

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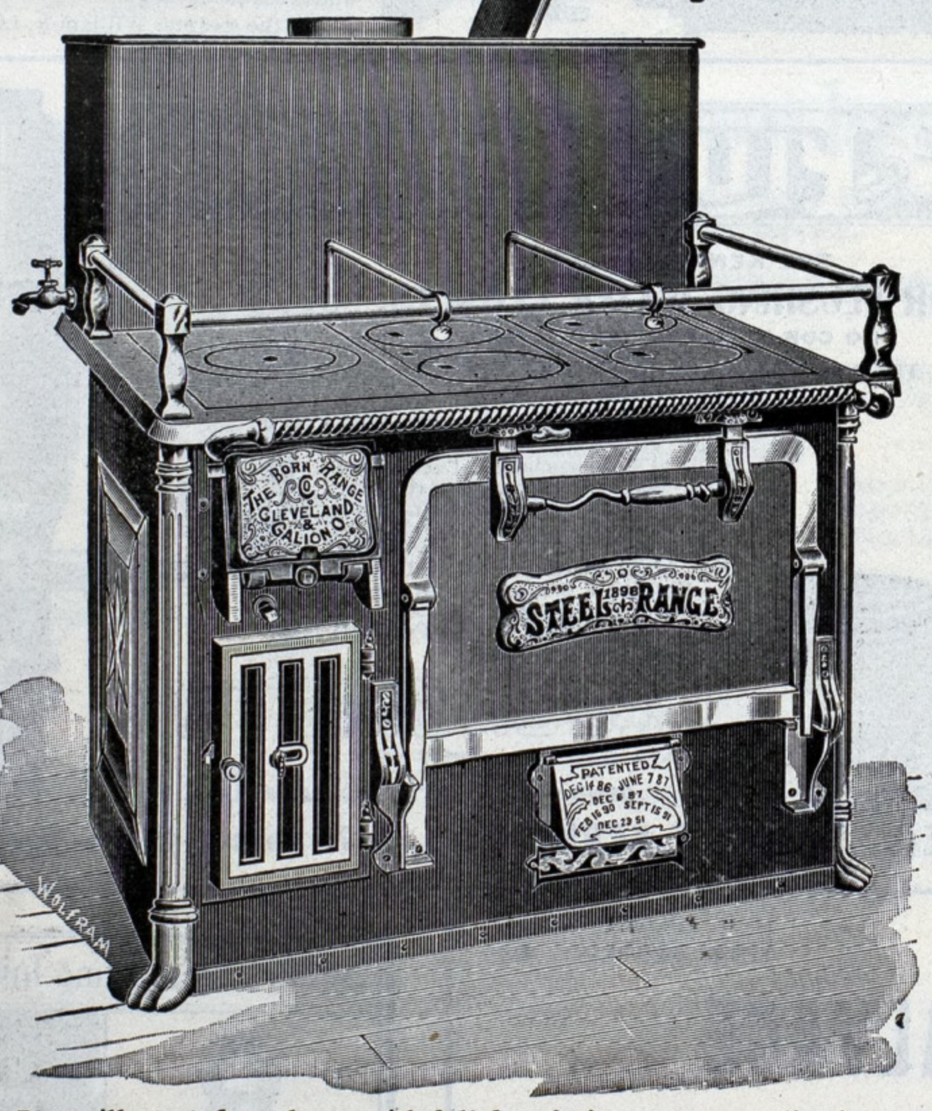

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